

What is claimed is:

1. An insulated ceiling for a building, comprising:
a plurality of spaced apart metal purlins having upper and lower flanges;
a metal roof attached to the upper flanges of the purlins;
5 a panel attached to the bottom flanges of the purlins so as to define a space between the
metal roof and the panel;
insulation in the space; and
the panel being mechanically attached to the purlins without the use of penetrating
fasteners.
- 10 2. The insulated ceiling of claim 1 further comprising a plurality of clips clipped onto
the lower flanges of the purlins, and a panel support member attached to the clips to
support the panel.
- 15 3. The insulated ceiling of claim 2 wherein the clips each have an upper channel
mounted on the lower flange of the purlin and a lower channel in which the panel support
member is mounted.
4. The insulated ceiling of claim 3 wherein the panel support member is slidably
20 received in the lower channel of the clip.
5. The insulated ceiling of claim 1 further comprising a panel support member
attached to the purlin to support the panel.
- 25 6. The insulated ceiling of claim 5 further comprising a plurality of clips to clip the
panel support member to the purlin.
7. The insulated ceiling of claim 6 wherein the clips each have an upper channel
mounted on the lower flange of the purlin and a lower channel in which the panel support
30 member is mounted.

8. A method of building an insulated ceiling, comprising:
supporting purlins in a spaced apart orientation, each purlin having upper and lower
flanges;
attaching a metal roof to the upper flange of the purlins;
5 attaching a ceiling panel to the lower flange of the purlins without the use of penetrating
fasteners so as to define a space between the roof and the ceiling panel; and
adding insulation in the space.
9. The method of claim 8 wherein the ceiling panel is clipped to the purlins.
10. The method of claim 8 further comprising attaching a panel support member to
each purlin to support the panel between adjacent purlins.
11. The method of claim 8 further comprising supporting opposite edges of each panel
15 with a support member attached to the lower flange of the purlins.
12. The method of claim 11 further comprising clipping the support member to the
lower flange of the purlins.
- 20 13. A purlin clip, comprising:
a body;
an arm extending over the body to form an upper channel adapted to receive a lower flange
of a purlin in a metal roof structure;
a pair of legs extending beneath the body to form a lower channel adapted to receive a
25 ceiling panel support member.
14. The purlin clip of claim 13 wherein the legs extend toward one another.
15. The purlin clip of claim 13 wherein the clip has a one-piece construction.
- 30 16. The purlin clip of claim 13 wherein the arm and legs are laterally offset.

17. The purlin clip of claim 13 wherein the arm is resilient.